

# How to Give a Great Presentation

The following are some guidelines, tips & lessons learned based on collective experience presenting and listening to (and in some cases enduring through) many presentations. **These work. Following them guarantees your success.**

If you're a first-time SCS participant, it is especially important that you read these guidelines carefully. If you're a veteran of previous SCSs, take a few minutes to read these guidelines anyway; you may pick up a helpful hint or two.

Writing a paper, as you know by now, requires a further time investment. The difficult part is over. The additional time required to put together a good presentation is small in comparison to what you've already done. If you give a poor presentation, you will have wasted a lot of effort, and you will have shortchanged yourself and your audience.

- **Be brief, be brilliant, and be gone.** 10 minutes of golden nuggets will have *far* more value and impact than 30 minutes of technical drivel, no matter how earth shattering the result.
- Your audience is most interested in the ideas you present that can be applied to their own work. Try to ask yourself what kind of a talk you would expect, based on the title of your session and the title of your paper, if you were in the audience. For example, suppose you were giving a talk entitled "Optimizing Batch Sizes in a Mixed-Product Sawmill" in a session entitled "Application of Simulation to Scheduling Problems." In order to establish a frame of reference for your audience, you would have to explain some of the peculiarities of sawing logs. However, if you took ten minutes to explain all the difficulties of slicing logs lengthwise and five minutes to explain all the difficulties of cutting logs to length, you would bore your audience to tears. With such an unusual topic, you could reasonably expect that *no one* in your audience would be concerned with an identical problem. On the other hand, your audience might contain persons concerned with simulating the scheduling of painting batches of similarly colored automobiles, or refining batches of petroleum-based products. These scheduling problems might have something in common with sawmill scheduling. The keys to success in giving a good presentation in such a session are (1) establishing a frame of reference for the audience, and (2) treating the subject broadly enough to encompass the range of interests of attendees that could be expected at such a session.
- You may have as little as 15-20 minutes to give your presentation (in a multiple-paper session). It probably took you days or weeks to write the paper upon which your presentation is based. Furthermore, the work upon which your paper is based may have taken weeks, months, or even years. Because your work took so much of your time, it is entirely understandable if you are ego-involved with your work. There's nothing wrong with being proud of your work; in fact, if you're not proud of your work, something is wrong. However, don't let your pride lead you into thinking that your audience must absorb each and every detail of your work. If you try to present too many details in a short period of time, your audience will quickly tire.
- Space your slides evenly over time. For a typical SCS presentation, the average time per slide should be 1–2 minutes. If you flip slides too frequently, there's not enough time for ideas to sink in. This can be extremely frustrating for your audience. On the other hand, if you talk about a single slide for more than several minutes, you strain the attention span of the audience. Practice the timing of your presentation. If you find that you spend more than several minutes on a single slide, consider making several more detailed slides.
- The audience is very broad based. Keep presentations "critical capability" based. Only a small part of the audience will understand your detailed technical discussions, so concentrate on what this research data, test results, etc. means, what is revolutionary, how is the State of the Art changed?
- One good way to measure the structure of your presentation is to ask yourself how a technically unknowledgeable reporter would report what you say. A well-structured presentation should be like a Mozart concerto, providing structure that is evident and pleasing to the average listener, but simultaneously containing nuances that can be appreciated by the expert.
- **Be dynamic, not static.** If you choose to anchor yourself behind the podium, vary the tone and intensity of your voice. Get out from behind the podium or use a laser pointer to be more animated.
- Avoid charts with many similar bullets; if it is not critical to your presentation get it off the charts.



- **Avoid speaking in a monotone.** Speaking in a monotone for 20 minutes will cause even the most interesting topic to become an excruciating experience in boredom for the audience, and a bored audience will not be paying any attention to you or your presentation.
- Qualitative insights are more important than quantitative results. Any test data / results presented should not be presented in a vacuum; nobody but you knows what these mean. Present only highly relevant results that illustrate your critical technical innovation or primary goal.
- There is nothing wrong with noting that there are additional backup charts and data available in the proceedings. Those who are interested in the details can go find them, those who are not will not be tortured to death with technical details they don't have the background to understand.
- Your audience's interest level will be highest at the beginning and the end of your presentation. Therefore, a good introduction and a good summary of conclusions are of **paramount** importance
- Use slides to visually reinforce your spoken words. At any given point in time, your audience will have two senses with which to absorb your presentation: sight and sound. Don't overemphasize the importance of the spoken word; give equal importance to visual aids. One good criterion for measuring the quality of your slides is to go through them in sequence and ask whether your major themes are readily apparent with no spoken words. Similarly, a good criterion for measuring the quality of your spoken words is to try your talk with no slides. These are harsh tests, because neither the spoken word nor your slides are adequate alone. If your spoken words and slides are both strong individually, then all that remains is to be sure they are properly coordinated, and this is very easy to do.

### Some **Dos** and **Don'ts**:

- **Do** use large type / Eliminate Eye Charts. You may be in a large room and you want to be sure those in the back can also see your presentation. The room is likely to be far too big for small type,
- **Do** use illustrative pictures & videos. These keep people's interest; everyone likes to see something move or even blow up.
- **Do** answer the "So what?" question, namely *What is the Point of your Paper*. Sounds simple, right? Most people somehow forget that the test results, progress reports, etc. should actually be *doing something*. Remember to say what it is.
- **Do** know the audience; be prepared to explain basic concepts, as the expertise is very broad. Nobody can be an expert on everything, and many levels of technical and management expertise are present at every conference. The high-level manager who just gave the keynote address, and stayed to hear some papers in the afternoon and the guy with 30 years of experience have different viewpoints. Neither will understand the details of your presentation without you relating why it's important.
- **Do** concentrate on a few key, critical points. Presentations in general should "tell a good story" about a significant effort or accomplishment. They can also issue technical challenges and goals. They are *not* good forums to present exhaustive technical details.
- **Do** have a good reason for showing each and every slide you use. For each slide you use, ask yourself "Why am I showing this slide?" Having done so, ask yourself whether the slide achieves your objective in the best possible manner. For example, if your reason for showing a table of results is to illustrate several key values, you may find that you have to point out these values, in order to distinguish them from values of little or no interest in the table. If so, you would be much better off if you designed a slide that shows only the important values and reinforces the spoken words you would use to describe the significance of the results, in the spirit of Section 7.
- **Do** use active titles on your slides.
- **Do** practice your presentation, but don't read it or memorize it. Practice is essential; however, if you practice too much, or read or memorize your presentation, all spontaneity is lost, and your presentation will be boring. A presentation is not a speech or an oration, but rather, a talk with your audience. Practice your presentation to the point at which you can give it without notes. (Well-designed slides should obviate the need for notes.)
- **Don't** use complex equations, chemical formulas or highly detailed, exhaustive data. (The two brilliant mathematicians who might be at the conference might be outside getting coffee during your presentation, and then *no one* will relate to what you say.)



- **Don't** be too highly technical.
- **Don't** run over time. Allocate time spent on each topic in direct proportion to its importance. Make a list of the major ideas you plan to present, and assign a weight from 1 to 10 to each idea. Add up the total weights, and calculate the percentage of the total to be devoted to each idea. Multiply your total presentation time by each percentage to get the amount of time to be spent on each idea.
- **Don't** speak from a prepared speech. Your presentation will come off as stiff and impersonal.
- **Don't** speak in a monotone. Those in the audience who do manage to stay awake for your entire presentation will have trouble hearing over the snoring of their fellow attendees.
- **Don't** read your own charts. Believe it or not, the audience can read faster than you can talk. If you can't add anything to what the chart says, you don't need to be there.

Just remember, being nervous is *perfectly normal*. Harness your nervous energy. Believe it or not, even very experienced speakers worry a little bit about giving a presentation. Therefore, if you're new to this sort of thing rest assured that it's perfectly normal to be worried.

However, there are two kinds of worry: *productive* and *counterproductive*. These are examples of *counterproductive* worry:

- My talk may run too long. (Solution: practice!)
- I may forget to say something important. (Solution: stick to the game plan you've laid out in your collection of slides.)
- The audience may laugh *at* me. (Solution: if this were a possibility, you wouldn't be on the program. A well-presented talk on a simple subject is infinitely preferable to a poorly presented talk on a complicated subject.)

Here are some examples of *productive* worry:

- I've got to remember to evenly space my slides, as I practiced.
- I can't let myself get bogged down in the details of my results slides, at the expense of communicating ideas.

*Productive* worry gets the adrenaline flowing and assures a good performance. *Counterproductive* worry makes a bad performance much more likely.

We have presented workable guidelines, tips & lessons learned for making a good presentation. **Follow them, and you will succeed.** There's no magic to giving a good presentation. A first-time speaker can give a good presentation by simply paying attention to the guidelines, tips & lessons learned given above. Remember, we want your presentation to be successful as much as you do.

**Best wishes for a successful presentation!**

